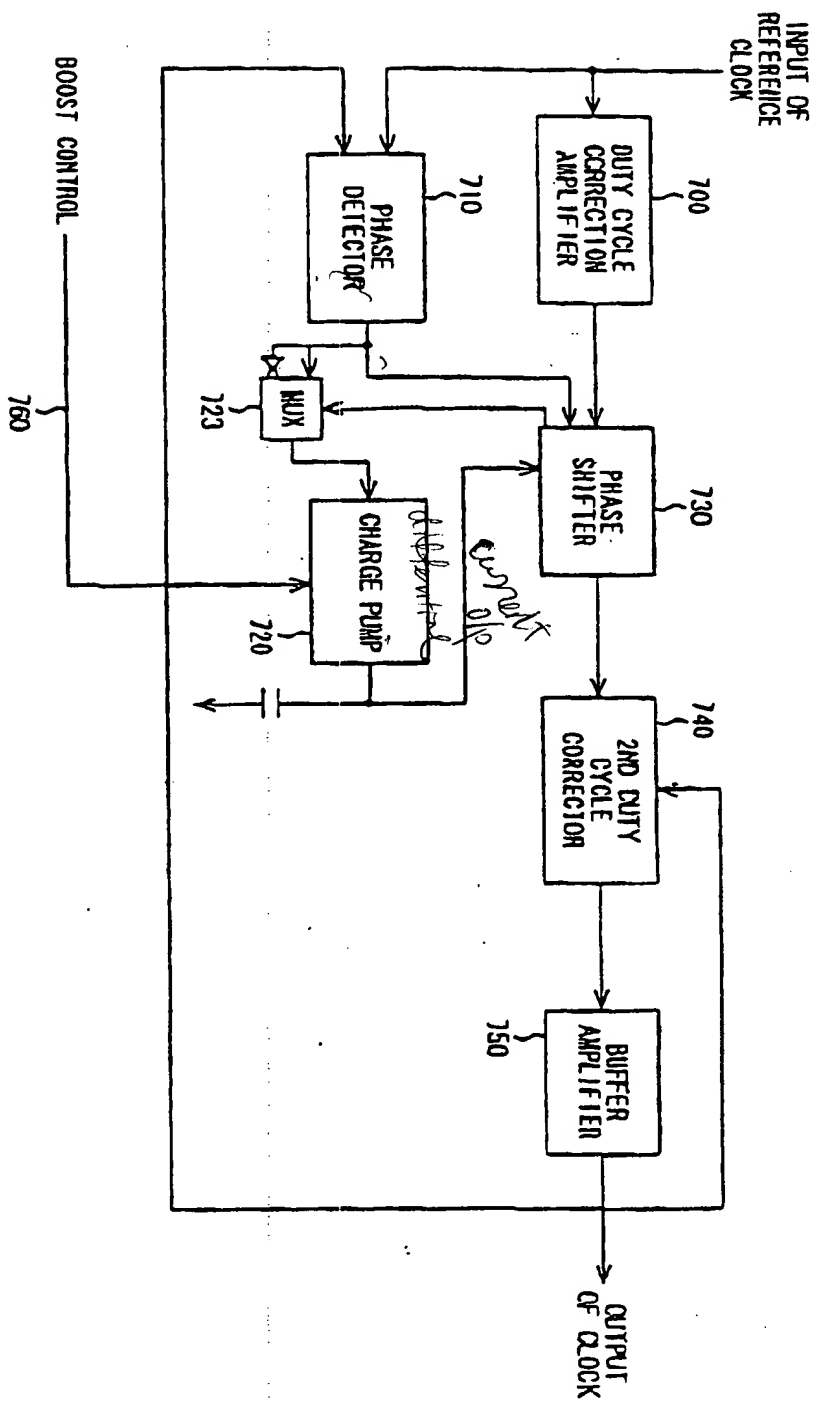




FIG. 2 PRIOR ART



$\frac{d}{dt} \left( \frac{1}{2} L i^2 \right) = L i \frac{di}{dt}$   
 Constant current

At phase detector

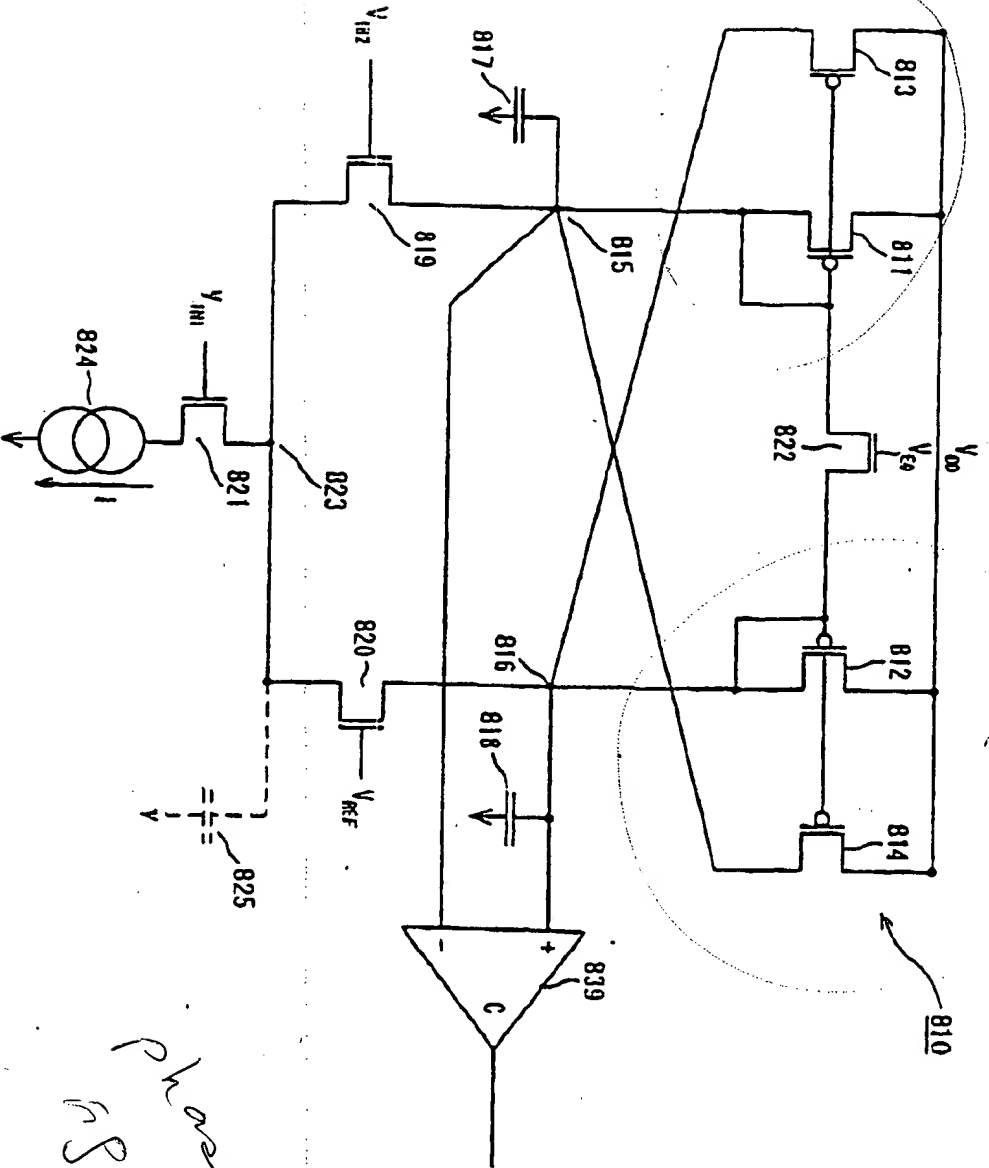
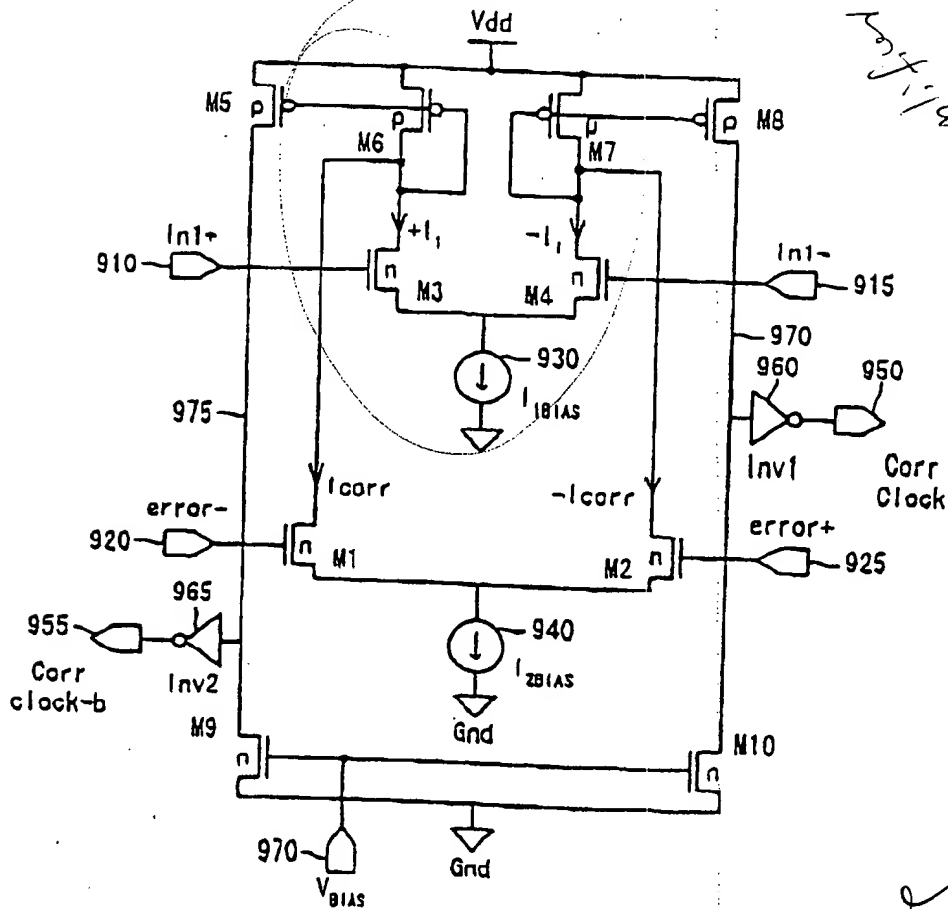


FIG. 4 PRIOR ART

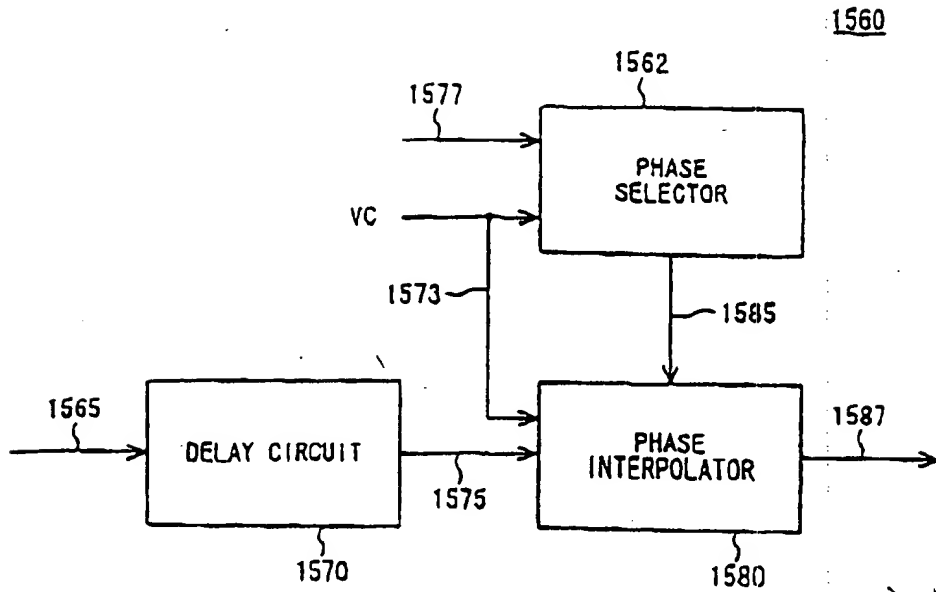


*2. Differential amplifier with feedback*

*Differential  
for  
Constant current supply*

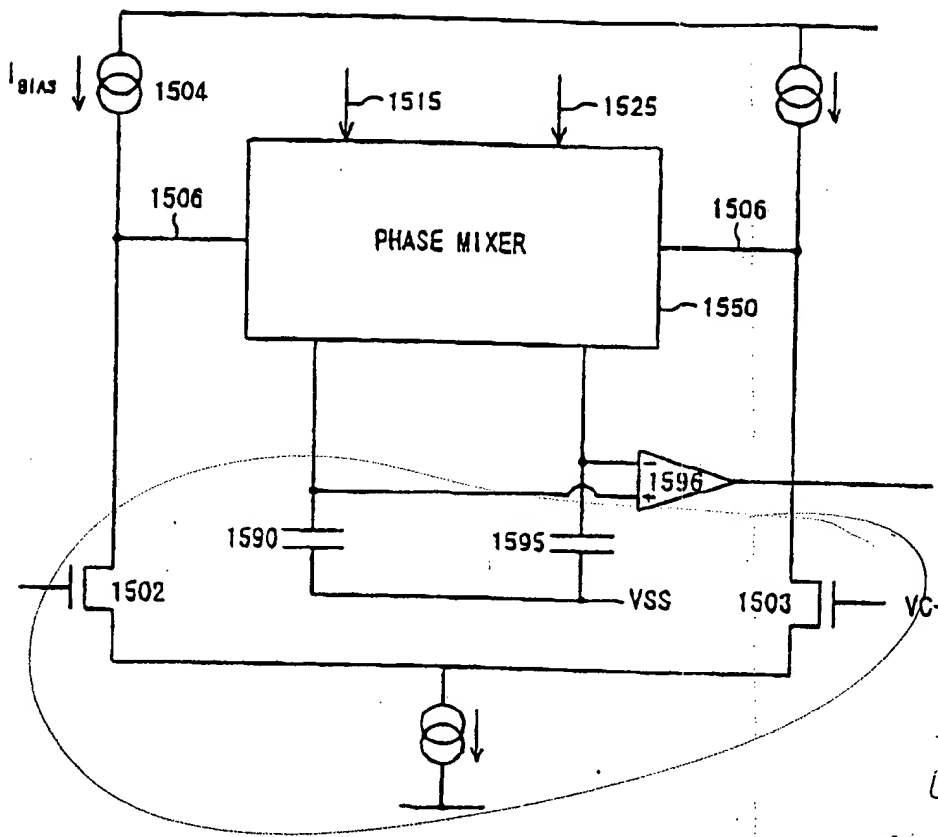
FIG. 4 PRIOR ART

FIG. 5 PRIOR ART



phase shifter of Fig. 2

FIG. 6 PRIOR ART



Differential  
Amp.

for

constant current!

phase shift 7 fig 5.

FIG. 7

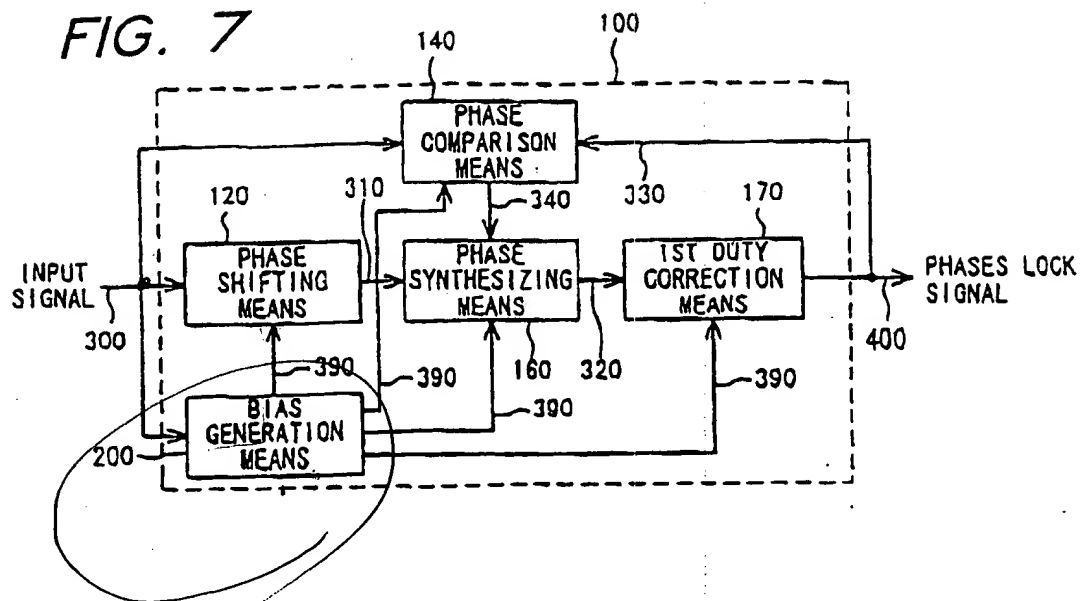
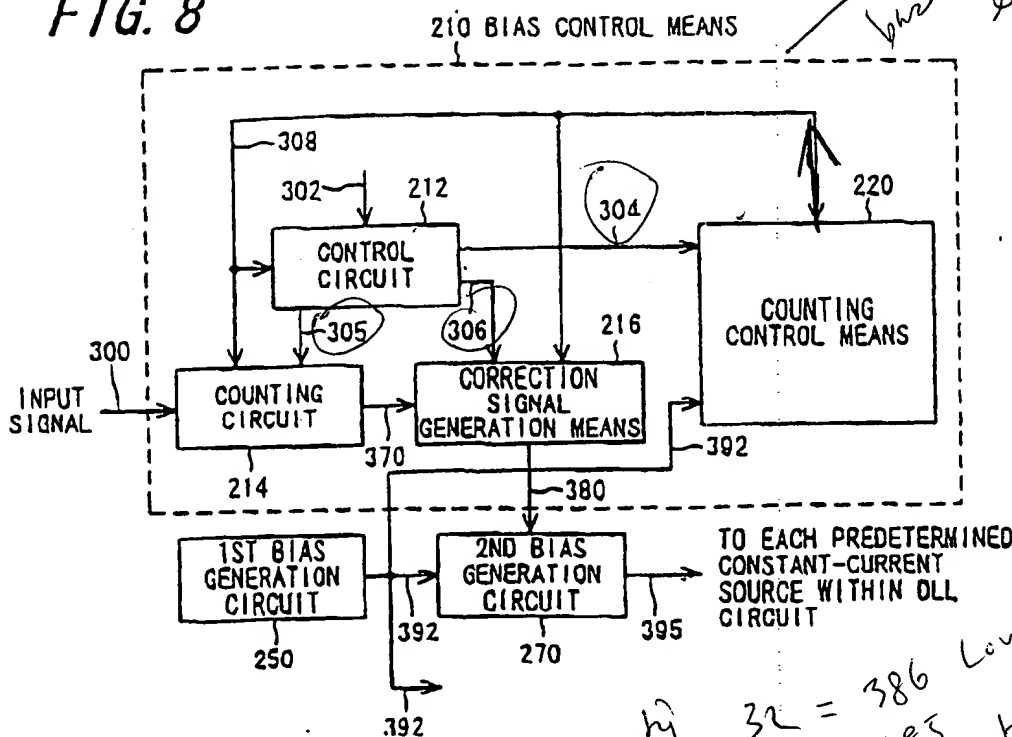


FIG. 7

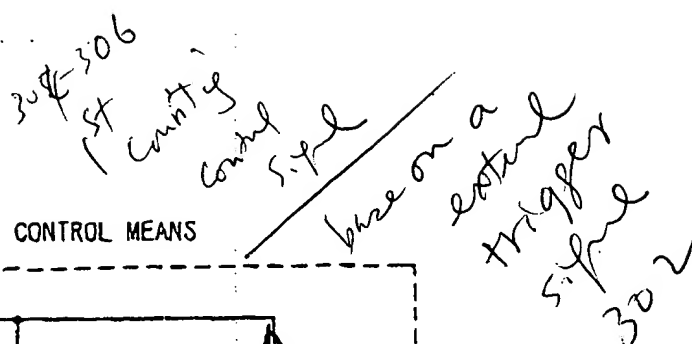
SECRET


FIG. 8



304-306  
1st counting  
control signal  
base on a external  
trigger  
signal  
302

CONTROL MEANS



ON  395

CONSTANT-CURRENT  
SOURCE WITHIN DLL  
CIRCUIT

Low level

32 = 386

385 high

381

Cont'd  
Reset

Counting CKT.

try CIRT.  
The min. count = "8"

The min. count = "8".  
 If lower than "8", correct is significant  
 make the % 380 correspond to "8".  
 than "8", said "9"  
 % 380 correspond to "9".  
 is "32".

2f lower than 8, ... correspond  
make the 7/380 correspond "8" said "9"  
0 2f higher than "8" said "9"  
216 make the 7/380 correspond  
out from 214 is "32"  
other the frequency  
swing

- If higher than 8
- The more count from 216 make the frequency is 380

⇒ the tripler count, the higher the frequency  
F<sub>T</sub> count ↑ then power consumption is ↑  
F<sub>V</sub> count ↓ then power consumption is ↓  
In this way, do not waste power or same power supply low-frequency operation



FIG. 9

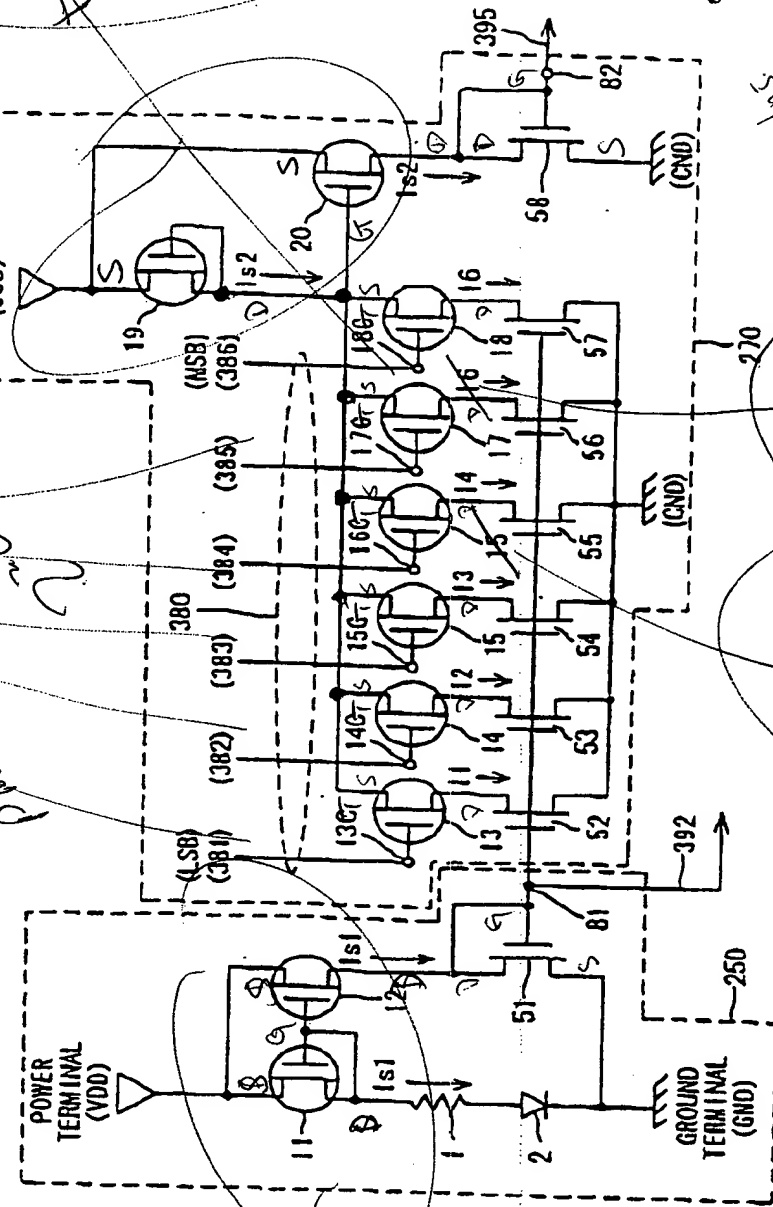
positive feedback

open circuit

13-18

13-18

FIG. 9



13C-18C

13C-18C

13C-18C

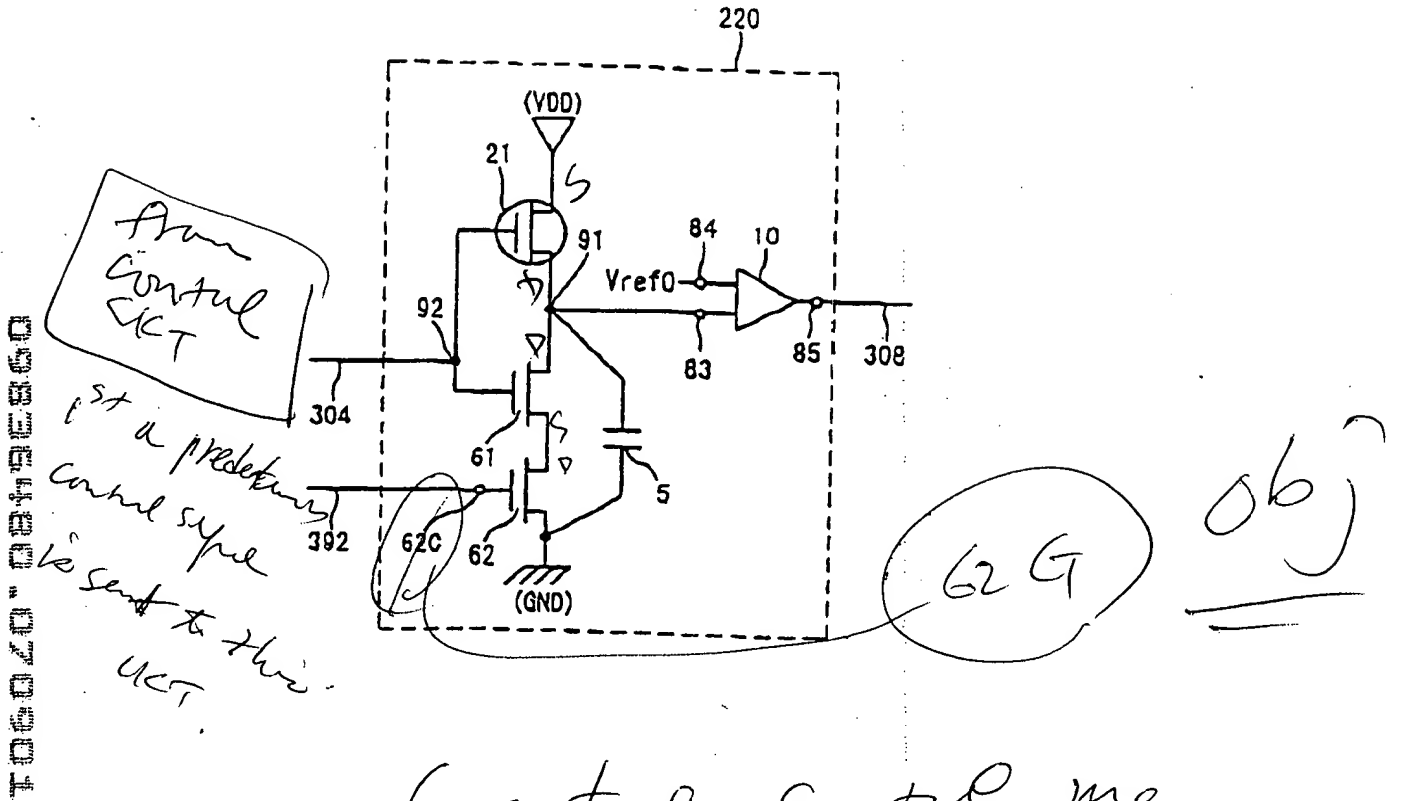
13C-18C

13C-18C

13C-18C

13C-18C

FIG. 10.



Comtup control means

Low level signal

304 will turn 21 (PMOS) on; & NMOS 61 off

Cap. 5 is charged to VDD.

high level signal 304 will turn 21 off & 61 on

Cap 5 is discharged through 61 & 62

FIG. 11A

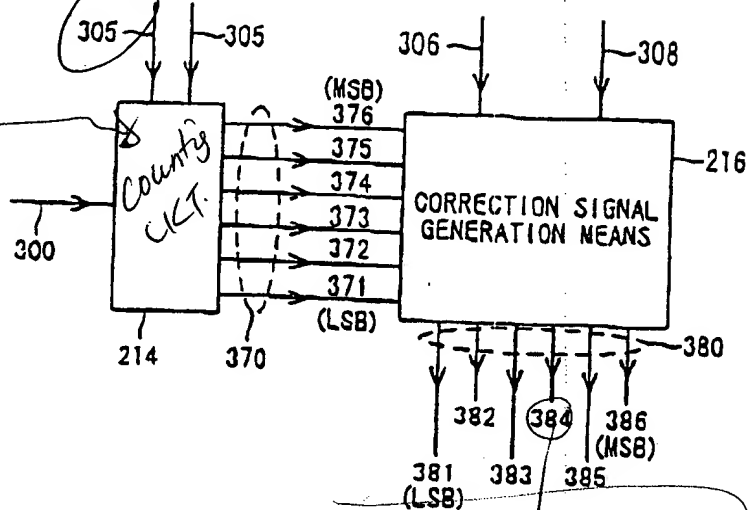
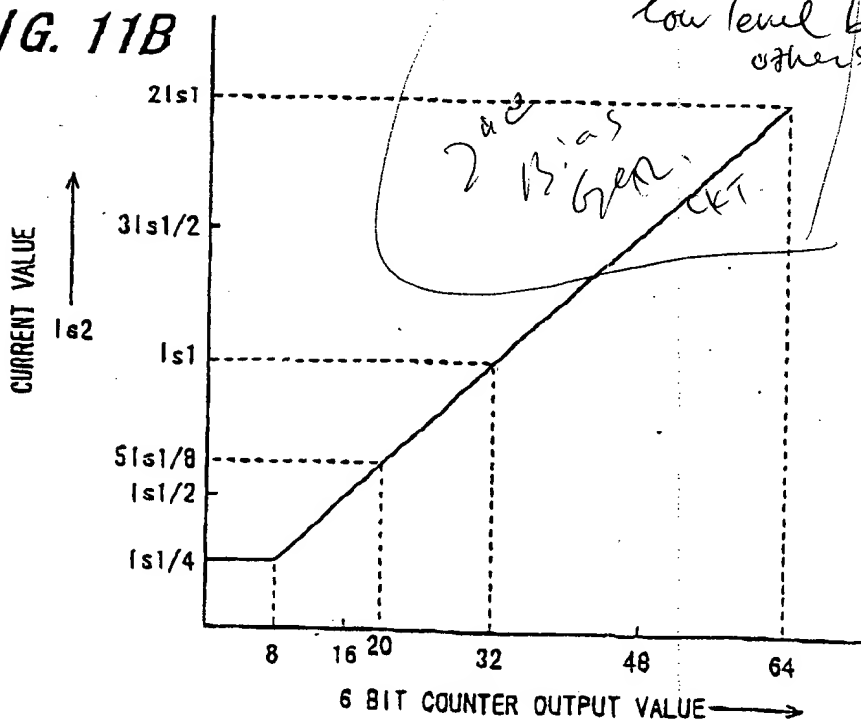


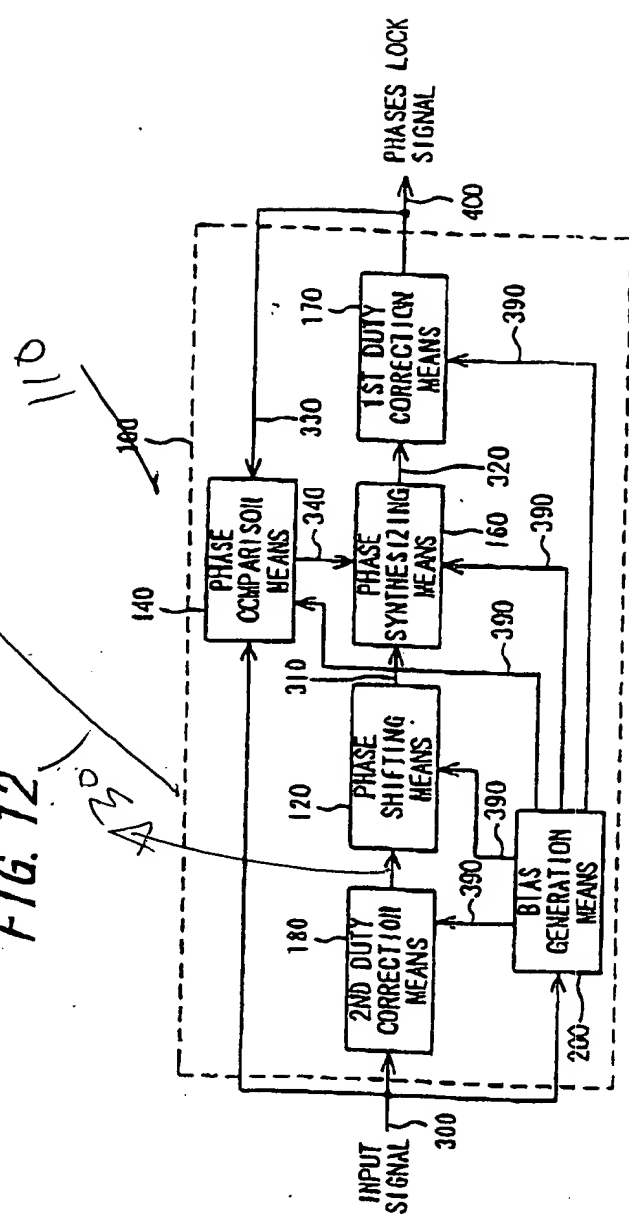
FIG. 11B



86j

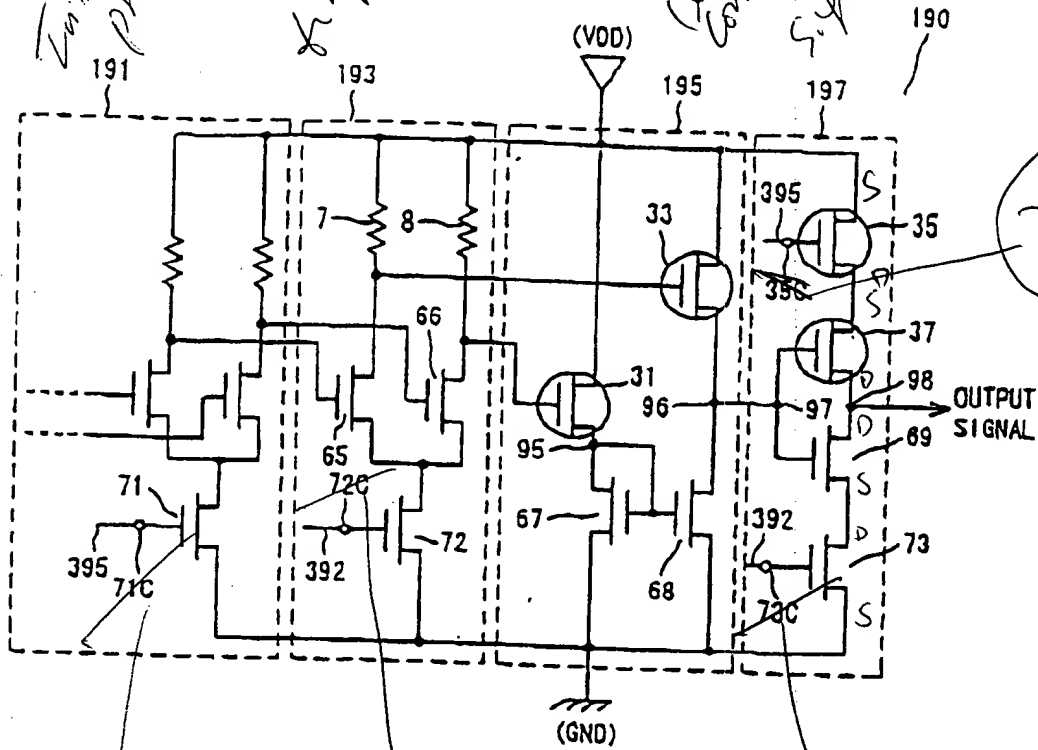
in flyin

FIG. 12



106020-08192860

FIG. 13



71G  
Obj

72G

73G

35G  
Obj

FO6070\* 0249EB60

FIG. 14

